U.S. Department of Energy

Oakland Operations Office

Technical Qualification Program

Phase I Assessment

September 1998

Section 2 Executive Summary

In response to the Defense Nuclear Facilities Safety Board Recommendation 93-3, *Improving DOE Technical Capability in Defense Nuclear Facilities Programs,* the Department of Energy (DOE) adopted a formal qualification program in the 93-3 Implementation Plan. The Oakland Operations Office (OAK) determined that 86 individuals, including managers, supervisors and staff, were required to participate in the program. The purpose of this self-assessment is to determine the OAK level of accomplishment in implementing its Technical Qualification Program (TQP) as specified through the requirements and guidance provided in DOE Order 360.1 and OAK TQP implementation guidance. The assessment scope includes a review and assessment of the processes used, the program decisions made, and the records and documentation associated with implementing the Technical Qualification Program.

The basis for the assessment is DOE Order 360.1 *Training* and the DOE 93-3 Revised Implementation Plan commitment 5.4.2 requiring a Phase I Assessment of the existing Technical Qualification Program. The approach for this assessment included three data collection methods: a program documents review, a training records review, and TQP participant surveys. The information collected has been analyzed and organized into the body of this report. Actual survey questions and results are noted in Attachment 4.

The TQP implementation at OAK is satisfactory. Of the 86 participants, 56 have completed the program and received certificates. The remaining 30 are scheduled to complete the program by May, 1999. The following are highlighted conclusions:

Strength: There is an overall sense that the TQP is a validating program. Through interviews and comments made on the surveys, participants, both supervisory and staff, believe the program has enabled them to verify the competencies they already possessed through assessment against a structured set of written standards. Participants have actively sought training, education and job experiences to "fill in the gaps" as a result of the assessment, and indicate that the TQP has been, overall, a positive program.

Area of Improvement: The TQP procedures need to be updated and institutionalized to more clearly reflect management's commitment and expectations for the program and the process. OAK will closely focus on job categories that include significant safety responsibilities at non-defense as well as defense facilities, reevaluate current standards, and define a set of standards for newly identified specific positions within OAK. In addition, OAK has concerns about the perception of participants, both managers and staff, that the program does not essentially improve the existing safety program. Further evaluation will be made.

Recommendation: Update OAK TQP Procedures. This action is currently in process. OAK has chartered a Federal Technical Qualification Team composed of representatives from all technical divisions and training. The objective of this team is to build on the existing program by reviewing this assessment and designing and developing an OAK-wide Federal TQP to include

both defense and non-defense facilities. The first action is to draft the program procedures. Additionally, our updated TQP Plans (procedures) will fulfill commitment 5.4.3 of the Revised 93-3 Implementation Plan.

Section 3 Introduction

The purpose of this Phase I Assessment Report is to fulfill commitment 5.4.2 of the Revised Implementation Plan for 93-3 by documenting the effectiveness of our existing Technical Qualification Program against the assessment objectives and criteria outlined in the Technical Qualification Program Assessment Guidance and Criteria of May, 1998. This assessment will also satisfy the Order 360.1 requirement to conduct periodic self-assessments of local implementation of the program. *Results of this assessment will be used to develop a revised Technical Qualification Program (TQP) here at the Oakland Operations Office (OAK).*

OAK has fully participated in the TQP since its inception in response to Defense Nuclear Facility Safety Board Recommendation 93-3 regarding improvement of technical skills within the Department of Energy (DOE). Implementation of this program began in 1995 and applied to individuals who had safety responsibilities at a Defense Nuclear Facility.

OAK identified 86 individuals who have safety or safeguards and security responsibilities at Lawrence Livermore National Laboratory. As of August, 1998, 56 individuals have completed the TQP with 30 more scheduled to complete by May, 1999 under the existing program. *Based on the results of our Phase I Assessment, individuals in the existing program, as well as newly identified individuals, will participate in OAK's revised TQP.*

The Phase I Assessment Report documents program strengths and weaknesses and provides recommendations for improvement. This was done by conducting a thorough assessment of the existing program with data provided in a report format to include the methodology utilized, the results found, and the recommendations made.

Section 4 Scope and Methodology

OAK approached the Phase I Assessment by thoroughly reviewing the *Technical Qualification Program Assessment Guidance and Criteria* published by the Office of Training and Human Resource Development in May, 1998 and following the guidance and criteria therein.

OAK established the TQP Assessment Team by reviewing the criteria and choosing a range of individuals to bring fresh viewpoints to the assessment. The Team Leader is A. John Ahlquist, Environment, Safety and Health (ES&H) Division Director (GS-15) and OAK's representative on the Federal Technical Capability Panel. Team Members are Charles Simkins, General Engineer; Ronald Claverie, General Engineer; and Margaret Smeaton, Training Manager. Resumes for

these individuals can be found in Attachment 2.

The scope of this Phase I Assessment includes a review and assessment of the processes used, the program decisions made, and the records and documentation associated with the following OAK Technical Qualification Program elements:

- C program administration and record keeping
- C personnel selection and assignment of qualification standards
- C development of office/site/facility specific standards
- C application of competency exemptions and equivalencies
- C progress toward meeting qualification completion schedules

The methodology utilized was to collect data and generate a report detailing the results of the data analysis. Data collection methods include:

- C surveys sent to all TQP participants: two surveys, one to managers and supervisors and one to participating employees
- C review of training and qualification records for 20 individuals randomly selected from the technical qualification program tracker
- C review of programmatic procedures, implementation guidelines, office/site/facility specific standards, databases and correspondences used to administer the program

The information and data acquired was analyzed and organized into the results section of the report, with conclusions and recommendations to be found in the summary section of the report.

Section 5 Results

This section is subdivided into eight sub-sections to individually address each of the seven objectives listed in the *Technical Qualification Program Assessment Guidance and Criteria* and to address the overall program. Each sub-section describes the current status of achieving the stated objective, including the identification of any strengths or weaknesses. If any of the criteria are not achieved a deficiency is identified.

TQP-1 Demonstration of Competence: The program clearly identifies and documents the process used to demonstrate employee technical competence.

1.1 At a minimum, personnel providing management direction and oversight that could impact the safe operation of a defense nuclear facility have been identified as participants in the Technical Qualification Program.

- C Briefings delivered to OAK's executive board/senior managers on the program, the

requirements, and the individuals selected to participate based on their providing management direction or oversight that could impact the safe operation of a defense nuclear facility. Senior officials reviewed identified personnel based on the requirements and approved the participant list. All participants were given personal binders with the program requirements and briefed on the process.

1.2 A formal evaluation process is in place to objectively measure the technical competency of personnel. The rigor of the evaluation process is commensurate with responsibilities of the position.

C OAK utilized the formal *Exemption/Equivalency Memorandum* format to objectively measure the technical competency of personnel. This process was rigorous in that each candidate had to address every single competency in their assigned standard, document any equivalencies, justify any exemptions and indicate any needed developmental activities. Senior managers reviewed the memorandums, interviewed the participants, and signed the memorandums when satisfied with the participant's competency level. All participants went through this rigorous process.

1.3 Individual Development Plans (IDPs), training plans, technical qualification records, or other related documents are updated to reflect the activities that each individual shall participate in to satisfy competencies.

C Exemption and Equivalency Memorandum data were entered into our TQP Tracker in order to continuously track progress toward program completion. The tracker generated Individual Development Plans or "Qualification Cards" for each TQP participant so that each person knew what activities had to be completed in order to satisfy competency requirements. Status reports were sent to supervisors periodically and completion of required competencies are documented in the employees training file as well as in our TQP tracker.

TQP-2 Competency Levels: Competency requirements are clearly defined and consistent with applicable industry standards for similar occupations.

2.1 Competency requirements include clearly defined knowledge, skill, and ability elements.

C OAK has elected to use the existing TQP qualification standards established by DOE/Headquarters (HQ). Knowledge, skill and ability elements were identified for each competency within each standard.

2.2 Subject matter experts are involved in establishing competency requirements.

C OAK elected to use the existing TQP qualification standards established by DOE/HQ.

Standards with their competency requirements were developed by subject matter experts from around the DOE complex. OAK contributed subject matter experts to this project. Locally, subject matter experts developed the Office/Site/Facility specific standards signed by senior managers.

2.3 Consideration of related industry certification requirements is included in the program as applicable.

C As part of the documentation for the extensive Equivalency and Exemption Memorandum, professional certifications are considered and applied to completion of specific competencies.

2.4 Competency requirements are identified in the areas listed below: OAK uses the existing TQP standards that identify competencies in three groups

Basic Technical Knowledge: This includes basic fundamental knowledge of radiation protection, occupational safety, chemical safety, nuclear safety, environmental regulations, and other areas.

C General Technical Base: This standard satisfies the basic technical knowledge requirements.

Technical Discipline Competency: Competency in a technical discipline which can be demonstrated by education, professional certification, examination or on-the-job performance.

C Functional Area Standards: There are 24 different functional area standards outlining competencies in technical disciplines.

Position Knowledge, Skills and Abilities: Specific to the position and the office.

C Office/Site/Facility Specific Standards: OAK has developed specific standards for technical staff and for senior technical safety managers that are applicable to the specific sites at Lawrence Livermore National Laboratory.

TQP-3 Plans and Procedures: Plans and/or procedures are developed and implemented to govern the administration of the program.

3.1 Written procedures that adequately define the processes and requirements to implement the Technical Qualification Program are in place.

C OAK has utilized DOE Order 360.1 as general implementing procedures and has developed a set of local procedures that were briefed to all participants and managers. Local procedures need to be more detailed.

3.2 Roles and responsibilities for the implementation of the Technical Qualification Program are clearly defined and understood by all involved.

C Roles and responsibilities are clearly delineated in DOE Order 360.1 and have been captured in our local procedures. These roles and responsibilities for implementation are generally understood by all involved and will be updated to reflect management's commitment to and participation in the program.

3.3 The procedures that govern the implementation of the Technical Qualification Program are understood by all involved, and are being implemented as written.

C Procedures that govern the implementation of the TQP are found in the 360.1 and in local guidance procedures but need to be institutionalized to reflect management's commitment to the program.

TQP-4 Qualification Tailored to Work Activities: The program includes the identification of unique Department and position-specific work activities, and the knowledge and skills necessary to accomplish that work.

4.1 An analysis has been performed to identify the related knowledge, skill and ability elements to accomplish the duties and responsibilities for each Technical Qualification Program functional area or position.

C OAK has elected to use the existing TQP established by DOE/HQ. At the time the competencies were developed, subject matter experts from across the DOE complex met to conduct tabletop analyses to determine the skills, knowledge and abilities required for each functional area. Comments and inputs were solicited from the field, and OAK subject matter experts participated in this project.

4.2 The program includes job-specific requirements related to the rules, regulations, codes, standards, and guides necessary to carry out the mission of the office.

C OAK utilizes the General Technical Base standard, the functional area standards, and our office/site/facility specific standards for both staff and for senior technical managers. These standards include requirements related to the rules, regulations, codes, standards, and guides necessary to carry out the mission of OAK. Our office/site/facility specific standard and our Facility Representative specific standard delineate further actual regulatory requirements that apply locally (ie. state and/or LLNL specific requirements).

4.3 The program supports the mission needs of the office.

C The TQP supports the mission needs of the office and is implemented at OAK based upon the responsibilities as related to risk and hazard for the person in the program. For example, Facility Representatives are held not only to the requirements of the TQP Standard for Facility Representatives, but also to the facility representative specific requirements in OAK Supplemental Directive 1063-93.1. As we revise our program we will again re-assess the risk/hazard component and include the Integrated Safety Management philosophy.

TQP-5 Credit for Existing Technical Qualification Program(s): The program is structured to allow credit, where appropriate, for other technical qualification program accomplishments.

5.1 Credit (equivalency) is granted for previous training, education, experience and completions of related qualification/certification programs, where applicable.

C OAK follows the guidance on equivalencies as stated in DOE Order 360.1. All equivalencies granted are based on objective evidence or the First Line Supervisor determination of competent job performance. The supervisor approves/disapproves justification for equivalencies to competencies. For areas where the supervisor is not qualified to judge, a subject matter expert may act as a qualifying official. Equivalencies are granted for prior education, training, or experience.

5.2 Equivalency is granted based upon a review and verification of objective evidence.

C All equivalencies granted are based on objective evidence or the First Line Supervisor determination of competent job performance. The supervisor approves/disapproves justification for equivalencies to competencies. For areas where the supervisor is not qualified to judge, a subject matter expert may act as a qualifying official. Equivalencies are granted for prior education, training, or experience.

5.3 Equivalencies are validated, approved and documented in a formal manner.

C As stated in 5.1 and 5.2 above, all equivalencies are approved per Order 360.1 and by a technically competent certifying official. These equivalencies are documented in a formal *Exemptions/Equivalencies Memorandum* kept in participant's training file.

TQP-6 Transportability: Competency requirements that are identified as having Department-wide applicability are transferable.

6.1 The program includes all of the competencies that have been identified as having Department-wide applicability.

C OAK has elected to use the existing TQP established by DOE/HQ. At the time the competencies were developed, subject matter experts from across the DOE complex met to conduct tabletop analyses to determine the skills, knowledge and abilities required for each functional area. Comments and inputs were solicited from the field, and OAK subject matter experts participated in this project. Additionally, the web-site Clearinghouse for Training, Education and Development at **http://cted.inel.gov/cted/** delineates department wide technical competencies.

6.2 Formal documentation of the completion of Department-wide competencies is maintained in a manner that will allow for easy transferability.

C Up until the Revised 93-3 Implementation Plan was in effect, all organizational units that participated in the TQP utilized the same set of standards for the General Technical Base and the Functional Area Standards. Through the "Lead Site" concept, developmental activities for each of the competencies in each standard were developed and made available throughout the complex on the web site Clearinghouse for Training, Education and Development at http://cted.inel.gov/cted/. Since the DOE complex participated together in this effort, the department-wide competencies and their equivalencies are easily transferable to any other DOE component.

6.3 The Technical Qualification Program is integrated with personnel-related activities such as position descriptions, vacancy announcements, recruiting, and performance appraisals.

C OAK has reviewed the TQP critical positions and has amended all of the position descriptions to indicate there is a TQP requirement, all of the performance standards to measure safety-related performances, and have included TQP requirements or the ability to get them in vacancy announcements and other recruitment efforts. Documentation of this has been forwarded to Human Resources at HQ as part of the 93-3 Revised Implementation Plan.

TQP-7 Measurable: The program contains sufficient rigor to demonstrate compliance to the principles.

7.1 The technical competency of personnel who have completed the requirements of the TQP is adequate and appropriate.

C OAK employees holding technical positions have academic degrees in technical areas and years of experience in their technical fields. As part of the TQP, a technically competent qualifying official attests to their competency by signing an exemption/equivalency memorandum and facility representatives undergo oral boards where technical managers

from OAK and LLNL evaluate the competency of that individual to be in a particular defense nuclear facility. The Work Force Review Group reviewed the Senior Technical Safety Manager qualification packages to ensure incumbent employees had the required education, experience, or compensatory measures for their positions.

7.2 The TQP has the commitment of senior management.

C OAK senior management is committed to the TQP as it exists and as it will be revised. All senior technical managers, including the OAK Manager, are in the TQP as a Senior Technical Safety Manager. Additionally, management has encouraged this Phase I Assessment and has chartered a Federal Technical Qualification Team to take the results of this assessment, make process improvements, and expand the program to include technical employees who are responsible for safety at non-defense facilities as well.

7.3 The program allows for continuous feedback and periodic evaluation to ensure that it meets the needs of the Department and the missions(s) of the office.

C Order 360.1 requires annual evaluation of the TQP. The Training Manager has continuously updated management and employees on the status of the program throughout all of 1998 while working to meet the original May, 1998 deadline for completion. Progress reports continue to go out to the 30 individuals expecting to complete the program in May, 1999. Training provides advice and counsel on where to look for appropriate courses and/or developmental activities to complete competencies. Participants completed a survey on the TQP, providing feedback on what is working and what is not. Continuous communication between and among TQP members and administrators keeps the program current and effective.

7.4 The program includes provisions for continuing training.

C DOE Order 360.1 dictates the requirement for continuing education; the TQP Standards express the need for continuing education; and our new revised and expanded program procedures will delineate the need for continuing education. We require continuing education in areas requiring recertification such as Hazardous Waste Operator (HAZWOPER) training and General Employee Radiological Training (GERT) as well as updates in regulatory requirements. IDPs are used to document these requirements.

7.5 A training and qualification records system is established for each employee in the TQP.

C OAK uses the DOE sanctioned TQP Tracker to track every single competency exemption, equivalency and/or developmental need or completion by every single TQP participant. OAK also uses On-Track for Training as our training records system for all employees, including TQP participants. OAK is actively involved with the CHRIS Training Module that is expected to replace the two systems now used.

Section 6 Summary

Conclusions: OAK's overall assessment is that the existing Technical Qualification Program is a valuable tool for assessing and documenting the qualifications of technical individuals responsible for safety at defense nuclear facilities. It was most valuable for DOE/OAK unique positions requiring a formalized approach for the first time by validating existing competencies and identifying competencies requiring further training. It was less valuable to individuals with clear subject matter expertise who are qualified as professionals using industrial standards, licensing and or certification procedures. Whereas participants (employees and managers) generally were positive, there is uncertainty over whether or not we've imparted the bottom line that safety is improved by the TQP.

The Technical Qualification Program procedures need to be updated and institutionalized to more clearly reflect management's commitment and expectations for the program and the process. OAK will closely focus on job categories that include significant safety responsibilities at non-defense as well as defense facilities, reevaluate current standards, and define a set of standards for newly identified specific positions within OAK.

Recommendations: Update the OAK TQP Procedures. This action is currently in process. OAK has chartered a Federal Technical Qualification Team composed of representatives from all technical divisions and training. The objective of this team is to build on the existing program by reviewing this assessment and designing and developing an OAK-wide Federal TQP to include both defense and non-defense facilities. The focus of our expanded program is on job categories that include significant safety responsibilities and development of a set of standards for those specific unique positions within OAK. OAK intends to follow up on the question of whether or not the program adds value to the safety program to see if there are ways we can better improve safety performance. The first action is to draft the program procedures. Additionally, our updated TQP Plans will fulfill commitment 5.4.3 of the Revised 93-3 Implementation Plan.

ATTACHMENTS

1. The Objectives and Criteria

Objectives and Criteria as outlined in *Technical Qualification Program Assessment Guidance and Criteria* authored by the Office of Training and Human Resource Development dated May, 1998 are listed in the **Results** section of this report on pages 4 to 10.

2. Listing of Team Leader and Team Members

Team Leader:

a. A. John Ahlquist is the Director of the Environment, Safety and Health Division and represents OAK as our technical agent on the Federal Technical Capabilities Panel. Mr. Ahlquist has thirty years with the Department of Energy (and predecessor agencies) complex (Los Alamos National Laboratory, AEC Regulatory, DOE Headquarters) and three with the International Atomic Energy Agency. His experience includes environmental assessment, environmental surveillance, environmental restoration, environmental standards development, applied health physics, emergency response, environment, safety and health management and international nuclear safeguards. Mr. Ahlquist hold a Masters Degree in Radiological Science (AEC Health Physics Fellow) and a Bachelors Degree (cum laude) in physics and mathematics.

Team Members:

b. Ronald J. Claverie serves as Oakland's Transportation Manager for a range of materials from general commodities to hazardous materials. His responsibilities at OAK have included Quality Assurance, Counterfeit/Suspect Parts, Occurrence Reporting, Lessons Learned, Safety Analysis, Operational Readiness Reviews, Safety Analysis Reviews and Operational Safety. He has been with DOE OAK since August of 1988 and has been with the Environmental Management Program since its inception in 1990. Prior to DOE Mr. Claverie served as the Material Readiness Evaluation Team Leader for Military Sealift Command. Other positions include his service as the Manager of Quality Engineering for Nuclear Energy Services in Danbury, CT and as Authorized Nuclear Inspector Supervisor with Inservice and Nuclear Concrete endorsements for Hartford Steam Boiler. In that capacity he was responsible for the inservice inspections of nuclear steam supply systems at 60 nuclear power plants domestic and foreign. Mr. Claverie holds a Masters Degree in Mechanical Engineering from Rensselaer Polytechnic Institute and Bachelors Degrees from University of Hartford and California Maritime Academy. He currently holds a Third Assistant Engineer's License with the US Coast Guard for Steam and Diesel Ships of any horsepower. He is also registered in Connecticut as a Professional Engineer.

c. Margaret H. Smeaton serves as the OAK Training Manager and Team Lead for training, employee relations and special projects. Ms. Smeaton has been actively involved with the TQP

since its inception, representing OAK on the Technical Personnel Coordinating Committee and communicating with senior management, supervisors and employees about the program. She and her staff administer the technical program and all training programs at OAK. Ms. Smeaton came to DOE in 1992. Prior to that she was a training branch chief at the Naval Aviation Depot, Alameda. There she was the Apprentice Program Administrator, administering seven different four-year programs in aircraft trades including electronics, aircraft instruments, electrical, airframes, engines, sheetmetal, and painter. Ms. Smeaton is a graduate of the four-year apprentice program and holds a Journeyman's Certification in Aircraft Instruments (electronic technician) from the Navy and from the Department of Labor. Ms. Smeaton was a teacher in the Mt. Diablo Unified School District and holds a Masters of Science Degree in Education, a Bachelors Degree in Liberal Studies and two California Teaching Credentials.

d. Charles B. Simkins has twenty-seven years experience as a Mechanical Engineer, primarily in heavy industrial applications. Mr. Simkins has technical experience in design and construction of piping and material handling systems as well as controls and instrumentation. Experience includes program and departmental management at small private consulting engineering companies and with the government including a six month detail as NRC Inspector while working for EG&G/LLNL; inspections of construction at Diablo Canyon and Palo Verde power generating stations; six NQA-1 audits of Nuclear Energy program for OAK; alternate to the OAK Manager on the Department Standards Committee; original Safety Management Implementation Team member representing OAK; Technical Standards Manager for OAK; member of the Operational Readiness Review (ORR) team for the Advance Light Source start-up at Lawrence Berkeley National Laboratory; and ORR for Kalina start-up at Energy Technology Engineer Center. Mr. Simkins holds a BSME from the University of California and a Certificate in Hazardous Materials Management from U.C. Berkeley Extension. Mr. Simkins is an associate member of ASME and a Professional Mechanical Engineer - California M18329.

3. List of personnel contacted and documents reviewed

Phase I Assessment TQP Surveys were sent to all 86 participating employees. Survey results are delineated under attachment category 4, "other pertinent information".

Training databases and training files were reviewed for the following 20 participants:

James Davis	Ralph Kopenhaver
June Schwabe	Valerie Sullivan
Walter Von Flue	Edward Thompson
Robert "Bud" Marsh	Yun T. Wang
Michael Wahlig	Edward Ballard
Douglas Eddy	Ray Corey
Philip Hill	Morton Lankasky

Jay Tomlin	Dean Decker
Claire Holtzapple	The Hsieh
Gary Lavagnino	Mark Lee
Lois Marik	Richard Mortensen

4. Other Pertinent Information

The Oakland Operations Office encourages communication between and among program participants in order to create the best possible technical competency program. One of the communication and feedback tools is a survey which was sent to TQP participants. The following is a report on the TQP survey of August, 1998:

a. There were two surveys used, one for non-supervisory participants and one for supervisory/manager participants. We originally surveyed only the fifty-six who had completed the program. We later decided to survey the remaining thirty in the program, but their response rate was so minimal as to non-report. The first five questions were the same for everyone, with two additional questions given to supervisors.

b. Of the 56 participants surveyed, 48 are staff and 8 are supervisor/managers.
c. Of the 48 staff participants, 25 responded (52%)
d. Of the 8 supervisor/managers, 6 responded (75%)
e. Questions asked and results are as follows: (Choices were Y, N or Unsure)

1. Do you have an Individual Development Plan and/or qualification card reflecting your technical training requirements?

Staff: Y = 76% N = 16% Unsure = 8%
Supervisors: Y = 83% N = 17%

2. Do you think the standards against which you have qualified are appropriate?

Staff: Y = 72% N = 16% Unsure = 8% No Answer = 4%
Supervisors: Y = 100%

3. Has the Technical Qualification Program been effective in identifying your competency requirements and helping you achieve them?

Staff: Y = 60% N = 16% Unsure =20% No Answer = 4%
Supervisors: Y = 83% N =0% Unsure = 17%

4. Has the Technical Qualification Program enabled you to carry out your safety responsibilities more effectively?

Staff: Y = 48% N = 40% Unsure =12%
Supervisors: Y = 83% N = 17%

5. Are your roles and responsibilities under the Technical Qualification Program adequately described?

Staff: Y = 80% N =20%
Supervisors: Y = 83% N = 0% Unsure = 17%

6. (For Supervisors/Managers Only) Do you know the completion status of each of the TQP participants within your organization?

Supervisors: Y = 67% N = 33%

7. Has the Technical Qualification Program added value to your safety program?

Supervisors: Y = 50% N = 0% Unsure = 50%

COMMENTS: The general focus of the comments from both staff and supervisors was that the Technical Qualification Program was most useful in validating already earned competencies.